effectiveness results. The objective of this study was to determine whether there was a relationship between the source of funding and the reporting of positive results. **METHODS:** We conducted a systematic review of the literature to identify economic evaluations of bisphosphonates for the treatment of osteoporosis. We extracted the source of funding, region of study, the journal name and impact factor and all reported incremental cost effectiveness ratios (ICERs). We identified which ICERs were under the thresholds of $20,000, $50,000 and $100,000 A quality score between 0 and 7 was also given to each of the studies. We used generalized estimating equations (GEE) for the analysis. **RESULTS:** The systematic review yielded 532 potential abstracts: Seventeen met our final eligibility criteria, 531 ICERs were analyzed, and ten studies (59%) were funded by industry. There was no significant difference between industry and non-industry funded studies reporting ICERs below the thresholds of $20,000 and $50,000. However industry sponsored studies were more likely to report ICERs below $100,000 [OR = 4.69, 95%CI (1.77–12.43)]. Studies of higher methodological quality (higher than 4.5) were less likely to report ICERs below $20,000 and $50,000 than studies of lower methodological quality (score under 4). Methodological quality was not significantly different between studies reporting ICERs under $100,000. **CONCLUSIONS:** Our study shows that funding source (industry vs. non-industry) did not significantly affect the reporting of ICERs below $20,000 and $50,000 thresholds. Methodological quality might be a more significant factor than source of funding in differentiating which studies are likely to report favorable ICERs, with the higher quality studies significantly less likely to report ICERs below $20,000/QALY and $50,000/QALY.

PMS28

REAL WORLD COSTS AND DOSING PATTERNS OF ABATACEPT AND INFLIXIMAB FOR THE TREATMENT OF RHEUMATOID ARTHRITIS

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OBJECTIVE: To determine the annual drug and administration costs and dosage patterns for patients with rheumatoid arthritis (RA) treated with infliximab or abatacept from a managed care perspective. **METHODS:** A retrospective analysis of medical claims was performed using the PharMetrics claims database. Patients with RA were identified from Janaury 1, 2003-December 31, 2005 for those prescribed infliximab and February 1, 2006-December 31, 2006 for those prescribed abatacept as first or subsequent biologic treatment. Patients were followed until medication switch, discontinuation, or end of study period. Primary outcomes of interest were annual drug and administration costs and dose escalation (increase in dose, dosing frequency or both). Patients' weight information required to calculate dose were unavailable, therefore paid amounts were used as proxy for dose. **RESULTS:** From first to last infusion, patients receiving infliximab (n = 1913) as first or subsequent biologic experienced an average dose increase of 17% and 39%, respectively. A total of 58% and 73% patients prescribed infliximab as first or second-plus biologic experienced dose escalation, respectively. For patients receiving abatacept (n = 184) as first or subsequent biologic, dose increase averaged 1.2% and 6.5%, respectively (no increase in number of vials for either). The dosing interval for patients receiving abatacept followed the recommended dosing regimen. Patients treated with infliximab experienced an increase in dosing frequency, averaging 49 days earlier in treatment (from 4^{th} to 14^{th} infusion) and 33 days later in treatment (15^{th} to last infusion). The estimated annual drug plus infusion administration cost of first and subsequent biologic therapy was $13,354 and $14,465 for abatacept and $16,608 and $23,913 for infliximab, respectively. **CONCLUSION:** Patients treated with infliximab experienced an increase in dosage and/or dosing frequency, resulting in an increase in real world treatment costs. Patients treated with abatacept showed no considerable increase in dose or dosing frequency from first to last infusion.

PMS29

BAYESIAN COST-EFFECTIVENESS ANALYSIS OF TREATMENT OF ANKYLOSING SPONDYLITIS

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OBJECTIVE: To evaluate the cost-effectiveness of etoricoxib (90 mg), celecoxib (200/400 mg), and the non-selective NSAIDs naproxen (1000 mg) and diclofenac (150 mg) in the initial treatment of ankylosing spondylitis (AS) in the UK. **METHODS:** A Bayesian cost-effectiveness model was developed to estimate the costs and benefits associated with initiating AS treatment with etoricoxib, celecoxib, diclofenac, or naproxen. Efficacy, safety and medical resource and cost data were obtained from the literature. With mixed treatment comparison meta-analysis the obtained efficacy estimates were synthesized. Treatment benefit and degree of disease activity, as reflected with BASFI and BASDAI scores, were related to quality adjusted life years (QALYs) and disability related costs. Other cost outcomes related to drug acquisition, gastrointestinal and cardiovascular safety were taken into consideration. Uncertainty in the source data was translated into uncertainty in cost-effectiveness estimates and therefore decision uncertainty. **RESULTS:** There was more than 98% a probability that etoricoxib results in greater QALYs than the other interventions. Over a 30-year time horizon, etoricoxib is associated with about 0.5 more QALYs than the other interventions. At 2 years there is a 77% probability that etoricoxib shows the lowest cost. This increases to >99% at 30 years. At 30 years etoricoxib is expected to save ≤19,460 relative to celecoxib (200/400 mg) and ≤14,140 relative to naproxen and diclofenac. For a willingness-to-pay ceiling ratio of ≤20,000 per QALY there is a >97% probability that etoricoxib is the most-cost-effective treatment. Additional analysis with different assumptions, including celecoxib 200 mg, and ignoring cost-offsets associated with AS disability, supported these findings. **CONCLUSION:** This economic evaluation demonstrated that etoricoxib is the most cost-effective NSAID treatment for AS patients in the UK.

PMS30

EFFECTS OF 12-HOUR, EXTENDED-RELEASE HYDROCODONE/ACETAMINOPHEN ON PAIN-RELATED WORK PRODUCTIVITY: A SUBANALYSIS FROM A 56-WEEK OPEN-LABEL STUDY

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OBJECTIVE: Chronic pain conditions, such as osteoarthritis (OA) and mechanical chronic low back pain (CLBP), among active workers cost employers ~$61.2 billion/yr in lost productive time, which includes both reduced performance while at work and days of work missed (absenteeism). An analysis of lost productivity time from a 56-week, open-label study was con-

ducted to calculate the potential economic effects of treatment with HC/APAP CR to employers. **METHODS:** As part of a larger clinical trial reported elsewhere, the Work Productivity and Activity Impairment (WPAI) instrument was administered at baseline and weeks 24 and 56 to measure reduced productivity and overall work impairment due to health. Results are reported as percentage of lost productivity time and estimated economic impact to employers. Using the 2006 U.S. average weekly wage of $861, the mean costs of reduced productivity and overall work impairment due to health were calculated. The economic impact of improved work productivity and overall work impairment due to health after treatment with HC/APAP CR was calculated as the difference in cost from baseline to week 24 and week 56. **RESULTS:** Impairment while working due to health decreased from baseline by 17.4% at week 24 and 16.6% at week 56. This translates into an estimated cost-savings (per employee) to employers of $3527 at week 24, and $8019 at week 56. Similarly, overall work impairment due to health decreased from baseline by 17.5% at week 24 and 15.8% at week 56. This translates into an average potential savings to employers of $3614 at week 24 and $7596 at week 56. Absenteeism decreased by 1.1% at week 24 and by 0.04% at week 56. **CONCLUSION:** As assessed by WPAI instrument, this subanalysis demonstrated 12-hour, extended-release HC/APAP CR improved work productivity after 24 and 56 weeks of treatment in patients with OA and CLBP.

MUSCULAR-SKELETAL DISORDERS—
Patient-Reported Outcomes

PMS31

TWO-YEAR LONGITUDINAL STUDY OF PERSISTENCE TO ANTI-TUMOR NECROSIS FACTOR TREATMENT AMONG RHEUMATOID ARTHRITIS PATIENTS

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OBJECTIVE: To evaluate long-term persistence of anti-TNF treatment among rheumatoid arthritis (RA) patients. **METHODS:** A retrospective study utilizing managed-care claims from the PharMetrics database was conducted. The first anti-TNF (infliximab, etanercept, or adalimumab) encounter (index biologic date) among RA patients between January 1, 2000 and January 1, 2006 was identified. Patients were required to have a minimum of 30-months of continuous plan eligibility; 6 months prior to and 24 months following their index biologic date, as patients were followed-up for 24 months after the index biologic date. Anti-TNF persistence was defined as the number of days between first biologic prescription and their last biologic encounter, and the persistence rate was defined as the persistence days divided by 730 and multiplied by 100. Univariate and multivariate analyses were applied to determine if differences in persistence existed among three cohorts: patients who received methotrexate (MTX) and combined with infliximab; etanercept; and adalimumab. **RESULTS:** A total of 2155 patients were analyzed consisting of 605 (28.1%) in infliximab group; 1,121 (52.0%) in etanercept group; and 429 (19.9%) in adalimumab group, over two-thirds (75%) were female and the mean age was 49.5 years. Age, gender, Charlson Co-morbidity Index and disease staging were similar among three cohorts. The overall persistence with anti-TNF agents was 535.7 days in the two-year follow-up period (73.4%). The infliximab cohort was more persistent (580.1 days, 79.5%) than the other 2 cohorts (etanercept group 520.3 days, 71.3%); and adalimumab group 513.3 days, 70.3%) and was statistically significant ($p < 0.0001$). After controlling for demographic variables and disease severity, differences among the three cohorts were statistically significant ($p < 0.0001$). **CONCLUSION:** These results indicate that patients on infliximab plus MTX are more persistent with anti-TNF therapy than other anti-TNF cohorts. Further studies are needed to evaluate the impact of persistence on economic, clinical, and humanistic outcomes.

PMS32

RELATIONSHIP BETWEEN PATIENTS' COMPLIANCE TO RA SPECIALTY MEDICATIONS AND TOTAL HEALTH CARE COSTS

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OBJECTIVE: The primary purpose of this study was to evaluate the relationship between compliance to rheumatoid arthritis (RA) specialty medications and the total health care (pharmacy and medical) costs among RA patients. **METHODS:** Deidentified pharmacy claims and medical claims data from a large pharmacy benefit manager's database were used in this retrospective study. Members who were primarily diagnosed with RA (ICD-9 714.0) and who have had at least one prescription for specialty medications between July-December 2005 were identified for the analysis. Specialty medications included for this study were as follows: Enbrel, Humira, Kineret, Remidace, Orencia, Rituxan. Members' pharmacy and medical claims in 2006 were collected to measure their compliance and total health care cost. Member's compliance to specialty medications was assessed by Medication Possession Ratio (MPR). Members were categorized into three different groups as—compliant (MPR > 0.8), partially compliant (MPR 0.5–0.8), and non-compliant (MPR < 0.5). All pharmacy costs; all medical costs and their breakdown cost such as physician visit, hospitalization, and ER visit etc; as well as total health care costs were computed and compared across the three groups using independent t-tests. **RESULTS:** A total of 689 members were diagnosed as RA, but only 148 members using specialty RA medications were included for the analysis. Compliant group members had significantly high pharmacy cost ($19,615 vs. $10,050) and significantly low medical cost ($3041 vs. $9086) as compared to the non-compliant groups ($P < 0.01$). Compliant group members showed significant low physician visit cost ($1,451 vs. $2,386 $P < 0.01$) and hospitalization cost compared to non-compliant group ($236 vs. $3,206 $P < 0.05$). The total health care costs were found to be comparable and non-significant among the three groups. **CONCLUSION:** The study demonstrated patients with good compliance tend to have higher pharmacy cost and lower medical costs as compared to those non-compliant to their therapy.

PMS33

RELATIONSHIP BETWEEN PATIENTS' COMPLIANCE TO MS SPECIALTY MEDICATIONS AND TOTAL HEALTH CARE COSTS

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OBJECTIVE: The consequences of patient non-compliance have been well documented in the literature and have been associated with poor health conditions and increased health care costs. Several studies have shown that the overall health care costs were lower for compliant patients than for non-compliant patients despite an increase in the pharmaceutical costs. Although, plenty research has been done describing the relationship between compliance and total health care costs, none has been conducted on specialty medications that are used to treat